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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/678,582

10/02/2003

Howard W. Lutnick

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EXAMINER

MISIASZEK, MICHAEL

ART UNIT

PAPER NUMBER

3625

MAIL DATE

DELIVERY MODE

08/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/678,582

Applicant(s)

LUTNICK ET AL.

Examiner

Michael Misiaszek

Art Unit

3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6-15,26,28,31-40,51 and 62-88 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-15,26,28,31-40,51 and 62-88 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/20/2007 has been entered.

Response to Amendment

Applicant's amendments filed 7/20/2007 have been received and reviewed. The status of the claims is as follows:

Claims 1, 3, 6-15, 26, 28, 31-40, 51, and 62-88 are pending. Claims 2, 4, 5, 16-25, 27, 29, 30, 41-50, and 52-61 have been cancelled by the applicant.

Claim Objections

Claims 26, 28, 31-40, 76-83, and 88 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Each of the claims purports to be an apparatus claim, yet it is recited as being dependent on claim a method claim. Accordingly, the claims do not further limit the steps recited in the independent method claims, and are improper.

In order for a claim to be properly dependent, it must pass the "Infringement Test," that is, it shall not conceivably be infringed by anything which would not also infringe the basic claim (MPEP 608.01(n)). In the instant case, each of claims 26 and 88 could conceivably be infringed by systems that set forth the claimed structure. However, these systems would not necessarily infringe on the method claimed in claims 1 and 51, respectively. Claims 28, 31-40, and 76-83 similarly fail the infringement test due to their dependence (ultimately) on claim 26, and thus on claim 1.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1, 3, 6-15, 26, 28, 31-40, 51, and 62-88 are rejected under 35

U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding Claims 1, 51

Each of claims 1 and 51 recite the limitation "receiving a plurality of trade prices and trade sizes related to trades of the item executed in a market that is separate from the auction." This limitation is found nowhere in the original disclosure. In fact, in at least paragraphs [0012], [0025], [0052], and [0062] of the original specification, the disclosure is directed to receiving prices and sizes from the present auction and using the received data to calculate the VWAP. Nowhere in the original disclosure is it recited that data from separate markets is received and used to calculate the VWAP.

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Regarding Claims 3, 6-15, 26, 28, 31-40, and 62-88

These claims are rejected for at least their dependence on claims 1 and 51.

Regarding Claim 11

Claim 11 recites the limitation "in which the recurring order is continuously placed in additional non-consecutive auctions until the size of the recurring order is filled."

While there is support for placing a recurring order that is continuously placed in additional auctions until it is filled. There is no mention anywhere in the original disclosure that limits the additional auctions to be non-consecutive.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 28, 31-40, and 76-83 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 28, 31-40, and 76-83 recite the limitation "the instructions". There is insufficient antecedent basis for this limitation in the claims. Each of these claims references instructions in a claim from which it depends performing method steps that the instructions in the parent claim did not perform. For example, in claim 34, "the instructions" of claim 26 are recited as further directing the processor to perform the method of claim 9. However, there were no instructions in claim 26 that directed a processor to perform the steps of claim 9. Accordingly, there has not been sufficient antecedent basis set forth for instructions that perform the method of claim 9. This exemplary explanation is applicable to all the rejected claims.

The antecedent basis issue would be resolved if claim 34 were amended (and the other claims amended accordingly) to read: "The apparatus of claim 26, further comprising instructions that, when executed by the processor, direct the processor to perform the method of claim 9".

The Examiner notes that though this amendment would most likely solve antecedent basis issues, it would not remedy the objection to the claims as set forth above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 9, 11, 13, 14, 26, 28, 34, 36, 38, 39 51, 62, 64, 65, 68-73, 76, 78, 79, 82, 83, 84, 86, and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Keith.

Regarding Claims 1, 26, 51, 88

Li discloses a method and apparatus comprising: a processor (at least abstract), a memory, in which the memory stores instructions (at least abstract) which, when executed by the processor, direct the processor to perform:

- receiving in an auction a plurality of orders for an item for the auction from a plurality of traders, in which each order comprises a price and a size (at least paragraph [0037])
- matching at least in part the plurality of orders (at least paragraph [0037])
- determining the VWAP price based on trade prices and trade sizes, and based at least on a portion of the plurality of matched orders; (at least paragraph [0037])
- filling the of matched orders based on the determined VWAP price (at least paragraphs [0029] and [0037])

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Li does not explicitly disclose:

- receiving the plurality of orders in an auction
- receiving a plurality of trade prices and trade sizes related to trades of the item executed in a market that is separate from the auction;

Keith teaches that it is known to include receiving a plurality of orders in an auction (at least paragraph [0065]) and receiving pricing data from an external market to calculate a price (at least paragraph [0030]) in a similar environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and apparatus as taught by Li, with the receiving of orders in an auction and the receiving of external pricing data to calculate a price, as taught by Keith, since such a modification would have provided increased flexibility and stimulated liquidity in the matching process (at least paragraph [0016] of Keith).

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Regarding Claims 3, 9, 13, 28, 34, 38, 64, 68, 69, 71, 78, 82, 83

Li further discloses:

- determining the VWAP price based on the match prices and the match sizes of the matched orders comprising the portion of the matched orders (at least paragraph [0037])
- at least a portion of at least one order is not matched; the method further comprising rolling over to another auction the at least portion of the of at least one order that are is not matched (at least paragraph [0029]: partially fulfilled offers to sell continuously placed until quantity met)
- filling the matched orders further comprises causing at least one matched order to be financially delivered delivering the portion of the plurality of orders that are matched (at least paragraph [0029]: requests fulfilled)
- each matched order of the portion of the matched orders comprises a match size and a match price (at least paragraph [0037])
- filling the matched orders comprises filling at least one matched order at the determined VWAP price (at least paragraphs [0029] and [0037])
- matching the plurality of orders based on at least one prioritization criteria (at least paragraph [0018]: prioritize by last in first out, other schemes)
- the trades of the item executed in the market occur over a calculation period (at least abstract: specified time period)

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Regarding Claims 11, 36

While Li discloses a recurring order, as detailed above, Li does not disclose that the order is continuously placed in additional non-consecutive auctions. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Li to have continuously placed the order in any additional auctions because such placement would have been an obvious matter of design choice in light of the apparatus and method already disclosed by Li. Such modification would not have otherwise affected the apparatus and method of Li and would have merely represented one of numerous steps that the skilled artisan would have found obvious for the purposes already disclosed by Li. Additionally, applicant has not persuasively demonstrated the criticality of providing the specific order placing in non-consecutive auctions versus the order placing in additional auctions, as disclosed by Li.

Regarding Claims 14, 39

Li discloses the claimed invention except for:

- the price of at least one order comprises an improvement of another price

Keith teaches that it is known to include price-improved orders (at least paragraph [0013]) in a similar environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and apparatus as taught by Li, with the price-improved orders, as taught by Keith, since such a modification would have provided increased flexibility and stimulated liquidity in the matching process (at least paragraph [0016] of Keith).

Regarding Claims 62, 65, 76, 79, 84, 86

Li does not explicitly disclose:

- the price of each order received and the match price of each matched order of the portion of the matched orders comprises at least one of: the to be determined VWAP price, an increment to the to be determined VWAP price, a decrement to the to be determined VWAP price, an improvement to another price, and an absolute price

Keith teaches that it is known to include an absolute price as part of a matched order (at least paragraph [0072]) in a similar environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and apparatus, as taught by Li, to include the absolute price, as taught by Keith, since such a modification would have provided increased flexibility and stimulating liquidity in the matching process (at least paragraph [0016] of Keith).

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Regarding Claims 70, 72, 73

Li discloses:

- a calculation period occurs after a trading period (at least paragraph [0001]: VWAP calculated after trade period)

Li does not explicitly disclose:

- at least a portion of at least one order is not matched;
the method further comprising canceling the at least portion of the at least one order that is not matched
- calculation based on an auction
- the auction comprises an auction period and in which the calculation period occurs at least in part concurrently with the auction period.

Keith teaches that it is known to include canceling unmatched orders (at least paragraph [0058]), and calculating a price during an auction based on auction pricing data (at least paragraph [0037]: VWAP average of executions currently taking place in a market) in a similar environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and apparatus, as taught by Li, to include the canceling and calculation, as taught by Keith, since such a modification would have provided increased flexibility and stimulating liquidity in the matching process (at least paragraph [0016] of Keith).

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4. Claims 6-8, 15, 31-33, and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Keith, as applied above, and further in view of Wagner.

Li and Keith disclose the claimed invention except for:

- at least one prioritization criteria comprises first prioritizing the plurality of orders based on the prices of the orders and then on times the orders were received
- at least one prioritization criteria comprises first prioritizing the plurality of orders based on the prices of the orders and then on an percentage sizes of the plurality of orders.
- at least one prioritization criteria comprises prioritizing the plurality of orders based on the prices of the orders
- causing a notification to be provided to at least one trader when the are matched orders have been filled

Wagner teaches that it is known to prioritize orders by time, price, and quantity at least figure 13) and providing notification of filled orders (at least column 23, lines 13-33: notify trader of filled orders) in a similar environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and apparatus as taught by Li and Keith, with the prioritizing orders and fulfillment notification, as taught by Wagner, since such a modification would have provided a more efficient marketplace by executing the trading process without the bias of participants (at least column 5, lines 14-25 of Wagner).

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While Wagner discloses the various prioritization criteria claimed, as detailed above, Wagner does not disclose the specific order in which the prioritizations are performed. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Wagner to have prioritized in any order because such prioritization would have been an obvious matter of design choice in light of the apparatus and method already disclosed by Wagner. Such modification would not have otherwise affected the apparatus and method of Wagner and would have merely represented one of numerous steps that the skilled artisan would have found obvious for the purposes already disclosed by Wagner. Additionally, applicant has not persuasively demonstrated the criticality of providing the specific prioritization ordering versus the prioritization disclosed by Wagner.

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5. Claims 10, 12, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Keith, as applied above, and further in view of Hughes.

The combination of Li and Keith discloses the claimed invention except for:

- a recurring order from a trader is continuously placed in additional auctions until the trader cancels the recurring order
- physically delivering the portion of the plurality of orders that are matched

Hughes teaches that it is known to include having to cancel a repeating order (at least paragraph [0030]: order cancellation) and physically delivering filled orders (at least paragraph [0030]: delivery of order) in a similar environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and apparatus as taught by Li and Keith, with the canceling of a recurring order and physically delivering a filled order, as taught by Hughes, since such a modification would have provided increased management and execution efficiency in the trading marketplace (at least paragraph [0030] of Hughes).

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6. Claims 63, 66, 67, 74, 75, 85, 87, 77, 80, and 81 are rejected under 35

U.S.C. 103(a) as being unpatentable over Li in view of Keith as applied above, and further in view of Friedland et al. (US 20020174060 A1, hereinafter Friedland).

Li and Keith disclose the claimed invention except for:

- the price received and the match price of at least one matched order of the portion of the matched orders comprises at least one of: an increment to the to be determined VWAP price, and a decrement to the to be determined VWAP price.
- the auction is one of a plurality of auctions of the item; in which each of the plurality of auctions comprises an auction period during which orders may be entered; the method further comprising: causing the plurality of auctions to be presented to at least one trader; and receiving from the at least one trader a selection of the auction from the plurality of auctions.
- the auction periods of at least two of the plurality of auctions take place at least in part concurrently

Friedland teaches that it is known to include a price increment in an auction (at least paragraph [0076]), presenting and receiving a selection from a list of a plurality of auctions (at least paragraph [0071]) in which at least two of the auctions take place at least in part concurrently (at least paragraph [0071]: ongoing auctions) in a similar environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and apparatus, as taught by Li and Keith, with the price increment, and the listing and selecting of auctions, as taught by Friedland, since such a modification would have provided increased time efficiency of auctions to remote bidders (at least paragraph [0015] of Friedland).

Response to Arguments

Applicant's arguments with respect to claim 61 are moot, as the claim has been canceled. However, the examiner notes that applicant's citation of the MPEP's discussion of product-by-process claims is irrelevant, as canceled claim 61 was not a product-by-process claim.

Applicant's arguments with respect to the disclosures of the Li and Keith references with regard to claim 1 have been fully considered, but they are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out **how** the language of the claims patentably distinguishes them from the references. Applicant merely cites various passages of the prior art references to summarize the references and makes blanket statements that claimed limitations are not present in the prior art, based on the cited passages. Applicant has not pointed out specifically **why** the claim language distinguishes the claimed invention from the prior art; rather, applicant has simply stated that the claim limitations are not present in the prior art. Applicant's arguments with respect to claims 26, 51, and subsequent dependent claims are not persuasive for similar reasons. The Examiner notes that claim 25 is not an independent claim, as it refers to, and therefore depends on, claim 1.

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Applicant's arguments with respect to the combination of the various references used in the rejections have been fully considered, but they are not persuasive.

Applicant asserts that the examiner has failed to provide sufficient evidence of record to support a suggestion or motivation to combine the references. As a preliminary matter, a motivation to combine has been cited for each of the reference combinations.

Regardless, since the cited references are analogous art, *KSR* forecloses Applicant's argument that a specific teaching is required for a finding of obviousness. In addition, the combination recited in the rejections only unites elements of the prior art references, as detailed in the rejections above, with no change in their respective functions and which yield predictable results. Thus, the subject matter claimed in the rejected claims would have been obvious under *KSR*. *KSR*, 127 S.Ct. at 1741, 82 USPQ2d at 1396.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Misiaszek whose telephone number is (571) 272-6961. The examiner can normally be reached on 8:00 AM - 4:30 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on (571) 272-6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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8/17/2007


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